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The study was supported by the Swedish Civil Contingencies Agency.

Livestock farmers' perceptions and opinions on biosecurity

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Material and methods

In December 2012, a questionnaire on biosecurity in Swedish livestock farms were sent to 4000 Swedish farmers with cattle, pigs, sheep or goats. In all, the questionnaire contained five different parts that dealt with the farm and the respondent (19 questions), contagious animal diseases and biosecurity (8 questions), communication and information (5 questions), buildings and cleaning routines (11 questions), and behaviour related to providing protective clothing for visitors (Theory of Planned Behaviour, 52 questions). Most questions had a format where farmers gave their reply in relation to two opposite statements, e.g. not likely at all – very likely, on a 7 degree scale. In total, 2081 farmers responded. Potential associations between question replies and demographic factors were investigated using multivariable ordinal and logistic regression. A selection of results are presented below:

Prevention of disease spread - perceived knowledge level

- Do you know how different infectious diseases spread and what you can do to prevent introduction of infections into the herd?

Explanatory variable	Odds Ratio	P
Age[b]	1.19	<0.001
Gender		
Female	*Baseline*	
Male	0.56	<0.001
Education level		
9 years compulsory school	*Baseline*	
Upper secondary school	1.13	0.390
Higher education	1.51	0.011
Degree of making a living out of production[a]	1.20	<0.001
Region		
Småland and the Islands	*Baseline*	
East Middle Sweden	1.68	0.002
South Sweden	1.61	0.008
West Sweden	1.24	0.165
North Sweden	1.42	0.033

[a]7 step scale

[b]in steps of 10 years

Compared to female farmers, male farmers indicate a lower perceived knowledge level and are also less confident that they can influence if infections are introduced or not.

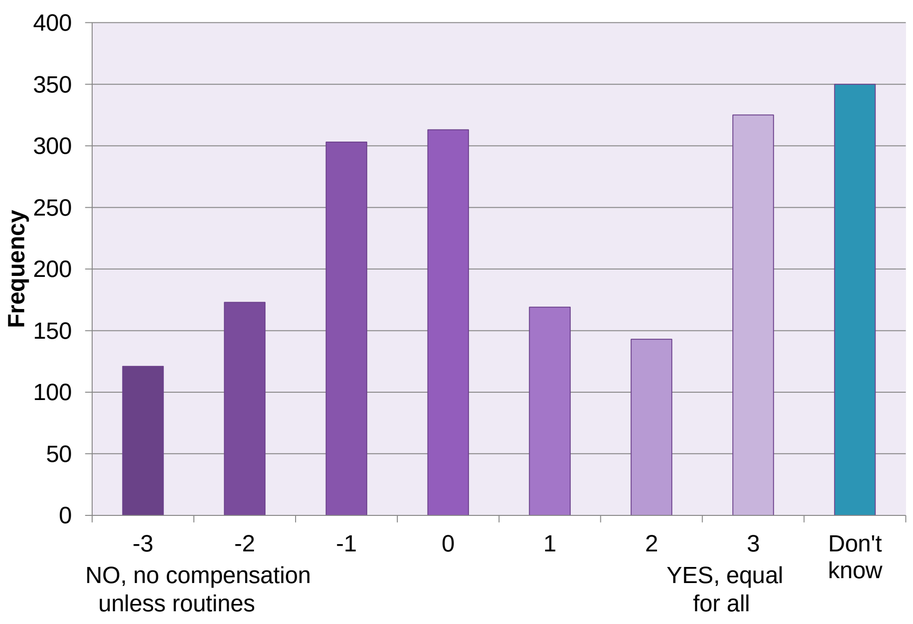
Farmers with a higher education level, older farmers and farmers that make a living out of their livestock production all indicate a higher knowledge level.

Farmers with pig farms and farmers in the north of Sweden are more confident that they can influence if infections are introduced or not.

- Do you think that you can influence whether the herd is affected by infectious diseases or not?

Explanatory variable	Odds Ratio	P
Gender		
Female	Baseline	
Male	0.60	<0.001
Future plan of farm		
Sustaining or expanding production	Baseline	
Ceasing	0.82	0.047
Farm type (species)		
Pigs	Baseline	
Cattle	0.59	0.002
Sheep and goats	0.67	0.031
Mixed	0.62	0.019
Region		
North Sweden	Baseline	
East Middle Sweden	0.73	0.033
Småland and the Island	0.58	<0.001
South Sweden	0.48	<0.001
West Sweden	0.71	0.014

Equal compensation in case of an outbreak?

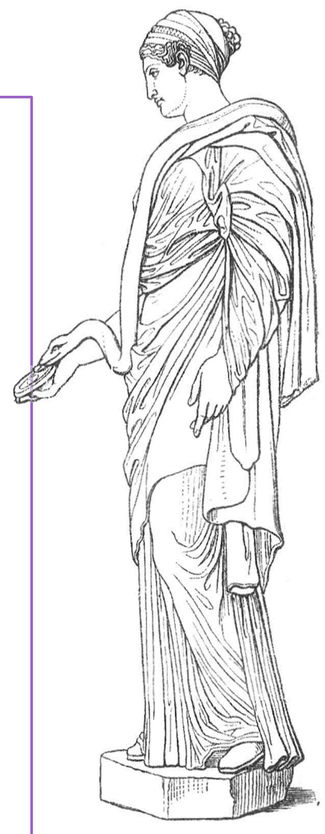


- Do you think that all affected farmers should get equal compensation levels regardless if they apply routines to prevent introduction of the diseases in question or not?

18% of respondents replied that they do not know.

Among farmers that did give an opinion, farmers with pigs and small ruminants were less positive to equal compensation compared to cattle farmers.

Female farmers, farmers with a higher education level, and farmers that plan to keep or expand their production were also less positive to equal compensation.



Hygieia –Greek goddess of health, cleanliness and sanitation